

KX-FW2504ZR3

Multilane Radar Detector



- One single radar covers up to 32 vehicles of 1–4 lanes.
- Precisely detects speed and position of vehicles when they are 18 m–35 m (59.1 ft–114.8 ft) away.
- Flexible to install: Either installed over the lane or at the side of a lane.
- Special functions such as detection of illegal lane change and wrong-way driving.
- The detection performance is not impaired by adjacent lane or vehicles in front of or behind the target vehicle.

Performance	
Lane Coverage	1–4 lane(s) (3.75 m (12.30 ft) standard lane)
Speed Measurement Range	5 km/h–350 km/h
Speed Measurement Accuracy	Simulated Speed Measurement Error Range: ± 2 km/h On-site Speed Measurement Error Range: Vehicle speed < 100 km/h: ± 2 km/h Vehicle speed ≥ 100 km/h: $\pm 2\%$
Detection Target	Up to 32 vehicles
Maximum Detection Distance	100 m (328.08 ft)
Minimum Detection Distance	2 m (6.56 ft)
Installation Height	5 m–10 m (16.40 ft–32.80 ft)
Position Detection Accuracy	$< \pm 2.5\%$ or $< \pm 0.5$ m (1.64 ft)
Overspeed Capture Rate	$\geq 95\%$ (when traffic is smooth)
Lane Recognition Rate	$\geq 95\%$
Frequency	24.150 GHz \pm 45 MHz
Response Time	≤ 50 ms
Transmit Power (EIRP)	20 dBm (100 mW)
Modulation	FMCW + Monopulse + Doppler, 3 transceiving antennas
Bandwidth	250 MHz
Protection Grade	IP67
Radar Beam Angle	Horizontal: -6° to $+6^\circ$ (-3 dB) Vertical: -5° to $+5^\circ$ (-3 dB)
General	
Operating Voltage	12V DC
Average Power Consumption	< 3.5 W
Operating Temperature	-40°C to $+85^\circ\text{C}$ (-40°F to $+185^\circ\text{F}$)

Relative Humidity	10%RH–90%RH, no condensation
Dimensions	155 mm \times 130 mm \times 54.9 mm (6.10" \times 5.12" \times 2.16") (L \times W \times H)
Weight	1 kg (2.20 lb)
Dimensions (mm[inch])	

